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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,078	01/08/2002	Sergio Caggese	FR920000085US1	6555
7590 12/22/2004			EXAMINER	
IBM Corp., IP Law 11400 Burnett Road, Zip 4054 Austin, TX 78758			NGUYEN, VAN H	
			ART UNIT	PAPER NUMBER
			2126	
DATE MAILED: 12/22/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,078	CAGGESE ET AL. 	
	Examiner	Art Unit	
	VAN H NGUYEN	2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 2-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/17/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the application filed on January 08th, 2002.
2. Claims 1-12 are currently presented in this application. Claims 1, 11, and 12 are independent claims.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The Applicants' Information Disclosure Statement, filed 17 June 2002, has been received, entered into the record, and considered. See attached form PTG 1449.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- (i) As to claim 1, the claim reads on a mental process or the manipulation of an abstract idea. The claim limitations are not explicitly directed toward steps being implemented on a computer, computer readable medium, or other statutory device. As such, they could be carried out mentally in conjunction with pen and paper. The claimed steps do not define a machine or computer implemented process (see MPEP 2106). Therefore, the claimed invention is directed to non-statutory subject matter. (The Examiner suggests Applicant to change “a method of scheduling” to “a computer implemented method for scheduling” in the preamble to overcome the outstanding 35 U.S.C. 101 rejection.
- (ii) As to claim 9, it appears to be a program per se because “a computer program” as claimed is not actually loaded “into a working memory”.
- (iii) As to claims 11 and 12, the claims recite “a system” in the preamble only, the body of the claims merely contain software modules. Therefore, the claims are a program per se and are not tangibly embodied and therefore not “a system”.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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8. Claims 1 and 7-12 are rejected under 35 U.S.C. 102(a) as being anticipated by **Carpenter** (US 6,199,068 B1).

9. **As to claim 1:**

Carpenter teaches the invention as claimed including a method of scheduling execution (*e.g., schedules are used to control the time-based execution; col.23, lines 42-45*) of a plurality of activities (*e.g., scheduled activities; col.23, lines 49-52*) including the steps of:

- (i) estimating a duration of a new instance of each activity to be scheduled as a function of a measured duration of completed instances of the activity executed previously (*e.g., the scheduler 138a obtains the average time to process schedule items... in order to schedule a job, the Scheduler 138a needs to determines how it will take. However, the execution time can only be estimated at best; col.24, line 59 - col.25, line 2*), and
- (ii) adjusting the estimated duration according to the value of at least one attribute of the new instance of the activity (*e.g., the Scheduler 138a contains several heuristic-tuning parameters for adjusting estimated execution times; col.25, lines 15-16*).

10. **As to claim 7:**

Carpenter teaches the at least one attribute of the new instance of the activity includes an indication of a planned time of execution (*e.g., the average time to process schedule items; col.24, lines 59-60*) and the at least one corresponding attribute of each completed

instance of the activity includes an actual time of execution (*e.g., the adjusted estimated execution times; col.25, lines 15-16*).

11. As to claim 8:

Carpenter teaches the activities consist of jobs of a batch processing (*e.g., a batch process; col.34, lines 55-60*).

12. As to claim 9:

Carpenter teaches a computer program (*e.g., AMR application; see fig.3*) directly loadable into a working memory (*e.g., system memory; fig. 2A*) of a computer (*e.g., AMR server 15; see fig.1 and col.23, line 57*) for performing the method of claim 1 when the program is run on the computer.

13. As to claim 10:

Carpenter teaches a program product (*e.g., AMR Server 15; col.34, lines 55-60*) comprising a computer readable medium (*e.g., system memory; fig. 2A*) on which the program of claim 9 is stored.

14. As to claim 11:

Note the rejection of claim 1 above. Claim 11 is the same as claim 1, except claim 11 is a system claim and claim 1 is a method claim.

15. As to claim 12:

Carpenter teaches the invention as claimed including a system for scheduling execution (*e.g., schedules are used to control the time-based execution; col.23, lines 42-45*) of a plurality of activities (*e.g., scheduled activities; col.23, lines 49-52*) including:

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- (i) a first software module for estimating a duration of a new instance of each activity to be scheduled as a function of a measured duration of completed instances of the activity executed previously (*e.g., the scheduler 138a obtains the average time to process schedule items... in order to schedule a job, the Scheduler 138a needs to determines how it will take. However, the execution time can only be estimated at best; col.24, line 59 - col.25, line 2; inherently, estimating execution times is performed by a software module and/or a function*), and
- (ii) a second software module for adjusting the estimated duration according to the value of at least one attribute of the new instance of the activity (*e.g. the Scheduler 138a contains several heuristic-tuning parameters for adjusting estimated execution times; col.25, lines 15-16; inherently, adjusting estimated execution times is performed by a software module and/or a function*).

Allowable Subject Matter

16. Claims 2-6 appear to be allowable over the prior art of record if rewritten to include all of the limitations of the base claim and any intervening claims, subject to the results of a final search, and subject to the correction of the 101 rejection of base claim 1 detailed above. These claims stand objected to as being dependent upon a rejected base claim.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Baker-Harvey (U.S. 6385638) teaches "Processor resource distributor and method."
- Dentler et al. (U.S. 6289368) teaches "Method and apparatus for indicating the status of one or more computer processes."
- Jones et al. (U.S. 5812844) teaches "Method and apparatus for performing currency Method and system for scheduling the execution of threads using optional time-specific scheduling constraints ."
- Brice et al. (U.S. 5764981) teaches "System for batch scheduling of travel- related transactions and batch tasks distribution by partitioning batch tasks among processing resources ."
- Moullec et al. "A scheduling framework for system-level estimation" 2000 IEEE, pp. 277-280.
- Perkovic et al. "Randomization, speculation, and adaptation in batch schedulers" 2000 IEEE, pp. 1-11.
- Chavez et al. "Challenger: a multi-agent system for distributed resource allocation" 2000 ACM, pp. 323-331.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571)

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272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756.
20. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
Commissioner for patents
P O Box 1450
Alexandria, VA 22313-1450

12/08/04



Van H. Nguyen